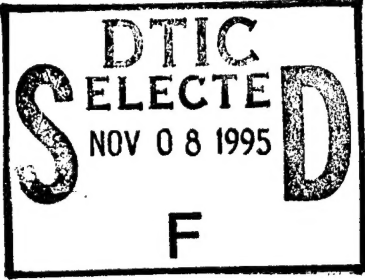


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# CREWSTATION TECHNOLOGY TRANSITION EVALUATION TOOLS

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## Biographical Information

### Richard Zielinski

Over 15 years experience as a Branch Head involved in the hands-on-design and development of computer based Avionic and Laboratory Systems. Over 30 years experience in both government and industry in the specification, design, development, and integration of electronic systems, including wide band communications systems, Modeling and Simulation Systems, and Advanced Prototypes. Education includes a BS in Electronic Physics from LaSalle College and a MS in Engineering Science from Pennsylvania State University.

### Walter Kahle

In current assignment is responsible for coordinating technology programs and facilities. Has over 30 years of experience in aircraft mission systems testing and the development of test facilities. Education includes: BSEE, University of MD; MS in Computer, Information and Control Engineering, University of Michigan; MS in Engineering Management, George Washington University; Program Management Course, Defense Systems Management College.

### Robert Parkinson

Currently working in project management support for the Federal Government. Retired from the Navy after nearly thirty years of service. That 30 years included significant aviation experience as a helicopter pilot, engineering test pilot, squadron command, ship operations officer, H-2/H-3/executive helicopter program manager in NAVAIR, test facility and resources management at NAWC Patuxent River as Vice Commander, and a final tour as a Branch Director in OPNAV logistics. Has Bachelor of Arts Degree in Biology from Dartmouth College and Masters of Business Administration from George Washington University. Also graduate of the USN Test Pilot School and the Program Management Course at Defense Systems Management College.

## Abstract

This paper discusses the development of a core set of technology demonstration tools to enhance and shorten the process of transitioning technology to products. The process is explained, along with associated issues and current capability, focusing on the shortfalls of the transition process. It then describes the core set of tools, a demonstration architecture, that span all of the stages of technology insertion with emphasis on the

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advanced stages of the technology transition process: the fixed simulation sites, mobile demonstration and flight demonstration.

Central to the paper is the description of the tool set of demonstration architecture to be hosted in a mobile demonstration system, manned flight simulators, and a combat system test bed aircraft. A baseline hardware set intended for "quick-in, quick-out" aircraft demonstration consists of a high throughput processor interface unit, a "state of the art" color flat panel display compatible with current combat aircraft cockpits, and a 1553 "cockpit bus" connecting the processor, display and technology in demonstration. This quick-in, quick-out core set of tools will minimize the need for dedicated technology demonstration aircraft. Other quick developmental tools address Rapid Prototyping, simulation environment, and crew centered design.

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